RANCHO SANTA ANA BOTANIC GARDEN
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YUCCA SCHIDIGERA
MOJAVE YUCCA

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RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

YUCCA SCHIDIGERA
MOJAVE YUCCA

Liliaceae Lily Family

Evergreen shrub 5-8, or occasionally to 15 ft. high; trunks one to several, often nearly 1 ft. in diam., with lower portion devoid of old, dead, deflexed leaves; roots cord-like, usually less than ½ in. in diam.; offshoots common, thus some large colonies are in reality one plant. Leaves olive or yellow-green, rarely blue-glaucous, 2-3 ft. long, 1-2 in. wide, nearly straight, at first erect, later spreading or deflexed, tipped with a sharp spine, margins with thread-like or stringy fibers. Inflorescence a large terminal panicle often over 2 ft. long, by 1 ft. broad and containing several hundred showy flowers. Flowers on pedicels up to 2 in. long; perianth fleshy, usually of 6 segments, the outer 3 greenish-brown outside and creamy inside, the inner segments creamy on both surfaces, each segment about 1½-1¾ in. long, tapered at both ends; flowers at first globose, later the segments are broadly spreading. Stamens 6, ½ in. long, with an enlarged club-shaped tip bearing a very small anther. Ovary 3-celled, ¾ in. long, ½ in. thick; stigmas 3-lobed, stigmatic on the hollow inner faces. Pollination is performed by the Yucca Moth which also lays its eggs in the ovary. The fruits are at first green and smooth, but at maturity are dull brown or tan and wrinkled, 2½-3½ in. long, usually unequally developed; each cell of the fruit (capsule) contains 2 rows of flattened, black seeds 5/16 in. broad. Mature fruits have a slightly sweet flesh, which along with the seeds, is eaten by animals. Flowers from March to April; fruits mature in September, but may remain on the plants for several months. In germination the single cotyledon remains within the seed coat and a thread-like growth about ¾ in. long is produced, at the end of which the fleshy primary root and several flattened leaves 1-2 in. long are soon formed.

The genus *Yucca* (name of Indian origin, early misapplied; in reality belonging to Manihot or Cassava) consists of 15-20 species native from the southeastern United States to California and south to Central America. Four species are found in California, of which *Y. brevifolia* (Joshua-Tree) is a grotesque and well known tree.

Yucca schidigera (from Latin for shaving or splinter, and used here in reference to the curled or shaving-like marginal fibers of the leaves) was described as new in 1871 by Ortgies who credited it to Roezl, an European collector, who had found it near San Diego in 1869. This name was long overlooked. Plants of this species seen by early botanical explorers were long thought to be a form of *Y. baccata,* a very different species. In 1896, C. S. Sargent (famous Director of the Arnold Arboretum) proposed the name *Y. mohavensis,* which has been generally used for this plant. However, Mrs. McKelvey (Yuccas of the Southwestern United States, Part I, pages 92-104, 1938) has clearly shown that *Y. schidigera* has to be accepted because it has priority.

The Mojave Yucca is found in abundance from southern Nevada and northwestern Arizona westward across the Mojave Desert and southward in the central and western portions of the Colorado Desert to northern Baja California. It is also in the cismontane portions of southern California from the vicinity of San Bernardino southward, and reaches the immediate coast from Oceanside southward in San Diego County. Over much of the Mojave Desert it is one of the most abundant woody plants at elevations of 3000-5000 ft., usually in association with *Larrea divaricata* (Creosote-Bush), and is confined to well-drained slopes or flats in sandy to rocky situations. Probably because of the low average rainfall and the many seasons of great drouth over much of its range, the Mojave Yucca does not bloom or set fruit excepting at intervals of several years. However, near the coast it flowers and fruits rather regularly.

On the Mojave Desert the plants of *Y. schidigera* ordinarily have olive-green or yellow-green leaves, particularly after a long dry period; near the coast the leaves are much greener. In Morongo Valley and westward to San Gorgonio Pass there is a geographic strain or subspecies with glaucous-blue leaves scarcely distinguisable from those of *Y. baccata,* and which breeds true to color from seed, as indicated below.

Propagation and cultivation of the Mojave Yucca has been highly successful under the conditions at the Garden. We have grown plants from seeds obtained near Mt. Tecate, San Diego Co., in 1927; from Morongo Valley, San Bernardino Co., in 1932; and from the Kingston Mts., eastern Mojave Desert, in 1935. From these collections we now have plants ranging in size from a few inches to over 7 ft. and bearing several hundred leaves 2-3 ft. long. The Mt. Tecate collection now consists of about 125 living plants, some of which bloomed and set fruit when 8 years old, but this season at least one-half of these are in bloom. The blue-glaucous strain from Morongo Valley has not yet flowered, but its leaves are about the same color as those of some near-by *Y. baccata.* Seeds of the Mojave Yucca are easily germinated by planting in sandy loam in outside seed beds or in flats in the fall or spring. Transplanting is not necessary until the end of the first season. Ordinarily the seedlings should be transferred to containers for a second year in the nursery and then planted out in their permanent places. In order to establish the plants, watering is essential the first season, but thereafter no irrigation is necessary, at least under our conditions. We have lost some fine plants from a heart rot, apparently from overhead irrigation during the summer months, and have discontinued this practice. We have not tried to transplant the suckers or offshoots, but believe that it would be as successful as with *Y. baccata,* which we have moved with good success.

Yucca schidigera is of interest at the present time as a possible source of fiber from its leaves for ropes and twine. The species, along with the other Yuccas of the Southwest, is being thoroughly investigated by the Bureau of Plant Industry.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general walfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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